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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,415	09/24/2001	Yasuyuki Anami	04739.0072	5646

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EXAMINER

NGUYEN, KIMBINH T

ART UNIT	PAPER NUMBER
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2671

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,415

Applicant(s)

ANAMI ET AL.

Examiner

Kimbinh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to amendment filed 12/3/03.
2. Claims 1-11 are pending in the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (5,844,563).

Claim 1, Harada et al. discloses holding process history data of a series of processes (a modification history data file 30 which stores records of modification of the model object; col. 5, line 44 through col. 6, line 6; figs. 3, 4 and 11); receiving a command for modification as a modification candidate process from among the series of processes (a first command, "straight sweeping" and its command ID of 1 are stored in a node 24; col. 6, lines 6-11; fig. 4); modifying the modification candidate process (col. 12, lines 37-51); wherein receiving a command presents a list including a part of the series to receive a process selected from the list (a list of the pair names for a given command is used as a part of an element list for the command; col. 6, lines 65-67). Harada does not teach a command for modification as a modification candidate process; however, Harada teaches a specified command selectively affecting a part of

the 3D solid model (col. 12, lines 63-65), the data modifier updates the 3D solid model data accessed is referenced by an index of the history data (col. 3, lines 45-47; col. 12, lines 42-51), and the modification candidate process must be a part which has been selected and referenced from the index. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the Harada's teaching for using a specified command selectively affecting a part of the 3D model to create a modification candidate process, because it would implement interactive manner, these interactive features of the design system encourage the designer to attempt various design without recreating and redesigning intermediate stages of the design process (col. 10, lines 26-29).

Claims 2, 3, Harada et al. discloses the list includes processes among the series of processes, which meet a predetermined condition (predetermined commands, col. 13, lines 41-43); the predetermined condition is whether or not designation of a value parameter is included (predetermined commands with a parameter; col. 3, line 55), whether or not it is related to a predefined command, and whether or not it is included in the list (col. 13, lines 42-43).

5. Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (5,844,563) in view of Freitag (5,615,317).

Claim 6, the rationale provided in the rejection of claim 1 is incorporated herein. In addition, Harada et al. discloses adjustment that becomes necessary as a result of modification (adjusting the rest of the 3D solid model data based upon the modification history data in response to the modifying the part of the 3D solid model; col. 12, lines

52-53); creating a series of adjustment procedure images according to the procedure for adjustment specified (col. 12, lines 52-54). Harada et al. does not teach displaying the adjustment procedure images in response to command; however, Freitag teaches displaying the desired way of the object in response to command (col. 4, lines 27-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the displaying adjustment procedure of 3D modeling system as taught by Freitag into design modification data structure of 3D modeling taught by Harada for adjusting a primitive of a 3D model and displaying the adjustment, because it would allow a user to modify the object displayed on the screen in a desired way, and specially to define parts of the displayed object where the user wants to make modifications, such as blending of edges (col. 4, lines 46-49). Further, **Claim 7** Freitag also teaches displaying a list for the procedure for adjustment specified (col. 1, lines 33-53).

Claim 8, the rationale provided in the rejection of claims 1 and 6 is incorporated herein.

Claim 9, Harada et al. discloses inputting a process to serve as a modification candidate process (a first command "straight sweeping" and its command ID of 1 are stored in a node 24, col. 6, lines 6-7; fig. 4); specifying a process (straight face sweeping process, col. 8, lines 22-24; fig. 10) to influence of modification applied to the modification candidate process associated with the process input (the given command performs its specified operation upon the elements referred by an indirect index, col. 8, lines 5-6) from among the series of processes (a series of processes of fig. 11). Harada

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does not teach displaying the process specified as being subjected to the influence; however, Freitag teaches displaying the process specified as being subjected to the influence (displaying a resulting geometric object (the specified process); col. 9, lines 22-25; col. 10, lines 40-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the displaying an edge to blend which has been selected by a user as taught by Freitag into the Harada's teaching for displaying the blended object (the specified process), because it would provide a method of blending operation in a 3D CAD device which is capable of storing a graphical representation and displaying it 3D in an isometric view and which allows a user to modify this representation interactively (col. 1, lines 16-20).

Claims 4, 5 and 10, the rationale provided in the rejection of claims 1, 6 and 8 is incorporated herein. In addition, Freitag discloses a computer readable recording medium (a mass storage device such as a magnetic or an optical disk; col. 4, lines 19-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a computer readable medium taught by Freitag into the system for modeling 3D solid model data based upon modification history taught by Harada for designing a 3D model object with an automatic updating feature which correctly and efficiently updates, because using the program memory contains instructions, it would create and manipulate of the geometric object under design (col. 4, lines 19-23).

Claim 11, the rationale provided in the rejection of claims 1, 4 and 6 is incorporated herein.

Response to Arguments

6. Applicant's arguments filed 12/3/03 have been fully considered but they are not persuasive, because Harada teaches all limitations of claims 1-3. In addition, in the arguments claim 1, the applicants remark that Harada does not teach the step of displaying of the processes; the examiner disagrees because claim 1 does not disclose displaying of the processes. Claims 4-11 have been modified by Freitag's teaching for suggesting the features of displaying the processes; displaying an adjustment procedure image (edge blending) and displaying the geometric results in response to modification command.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kimbinh Nguyen** whose telephone number is **(703) 305-9683**. The examiner can normally be reached **(Monday- Thursday from 7:00 AM to 4:30 PM and alternate Fridays from 7:00 AM to 3:30 PM)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Part II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Technology Center 2600 Customer Service Office
whose telephone number is (703) 306-0377.

February 19, 2004

A handwritten signature in black ink, appearing to read "Kimbinh Nguyen".

Kimbinh Nguyen

Patent Examiner AU 2671